

**STATE OF MICHIGAN**

Rick Snyder, Governor



**DEPARTMENT OF ENVIRONMENTAL QUALITY**

**AIR QUALITY DIVISION**

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**PUBLIC PARTICIPATION DOCUMENTS**

For  
L'Anse Warden Electric Company  
L'Anse, Michigan

**PERMIT APPLICATION NUMBER**

**53-17**

June 26, 2017

## **FACT SHEET**

June 26, 2017

### **Permit to Install Purpose and Summary**

The Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD), is proposing to act on Permit to Install (PTI) application No. 53-17 from L'Anse Warden Electric Company (LWEC). The permit application is for the proposed temporary combustion of engineered fuel pellets in LWEC's existing boiler, for a period of up to 180 days. The fuel pellets are made of non-recyclable paper, label, and packaging waste. LWEC is proposing to replace a portion of their current fuel mix with the fuel pellets. To reduce emissions of sulfur dioxide (SO<sub>2</sub>), hydrogen chloride (HCl), and other acid gases, and to continue to comply with the emission limits in their current permit, LWEC is also proposing to install a sorbent injection pollution control system.

The proposed project is subject to permitting requirements of the Department's Rules for Air Pollution Control. The AQD has evaluated this proposal and made a preliminary determination that the project will not violate any of the MDEQ's rules nor the health protective National Ambient Air Quality Standards (NAAQS) and the Prevention of Significant Deterioration (PSD) air quality increments. The PSD increments are intended to allow industrial growth in an area while ensuring that the area will continue to meet the NAAQS.

Prior to acting on this application, the AQD is holding a public comment period and a public hearing to allow all interested parties the opportunity to comment on the proposed PTI. The public hearing will be held on July 26, 2017, at 7:00 p.m. at the L'Anse High School in L'Anse, Michigan. Prior to the hearing, an information session will be held at 6:00 p.m. All relevant information received during the comment period and hearing, will be considered by the decision maker prior to taking final action on the application.

### **Renewable Operating Permit Purpose and Summary**

LWEC currently operates under the terms of existing PTI No. 67-16 and Renewable Operating Permit (ROP) No. MI-ROP-B4260-2011. By law, ROPs are required to go through a renewal process every five years. LWEC has submitted an ROP renewal application, No. MI-ROP-B4260-20XX to the AQD. All ROP renewals are required to undergo public comment. Because the AQD is reviewing both LWEC's PTI application and their ROP renewal application simultaneously, it was decided that a joint public comment period and public hearing would be held for both applications.

The draft ROP renewal includes the terms and conditions of the most recently issued PTI, No. 67-16. PTI No. 67-16 requires the corroded sections of LWEC's exhaust stack to be repaired by no later than September 30, 2017. LWEC has a planned shutdown in July, and they plan to make the repairs at that time. The draft ROP also incorporates the terms and conditions of the recently entered Consent Order. The Consent Order requires emissions testing for HCl on a more frequent basis than previously required, and the construction of an enclosure to minimize fugitive dust emissions from the fuel feed conveyors, which has recently been completed.

Information about the draft ROP renewal and how to submit comments on it, including the Public Participation Staff Report, is available at the AQD web page at: <http://www.michigan.gov/deqair>. Choose the "Permits" Tab, then "ROP Public Notice Documents". You may contact Mr. Ed Lancaster, AQD, at 906-250-5124 for printed copies.

The remainder of this document will address the draft PTI application.

### **Background Information**

LWEC is located at 157 South Main Street, L'Anse, Baraga County, Michigan. The facility operates a 324 million British thermal unit (MMBTU) per hour boiler that is used to generate steam and electricity. The boiler is currently permitted to burn a combination of fuels including natural gas, wood chips, tire derived fuel, railroad ties, wood fines, and bark. The plant is bordered on the north by the Village of L'Anse Marina, on the west by the Falls River and CertainTeed Corporation, on the south by US 41 and commercial operations and on the east by the Village of L'Anse (commercial and residential properties, an elementary school and senior housing). There are public access trails on both the east and west sides of the property.

### **Proposed Project and Present Air Quality**

The proposed project is a temporary permit allowing up to 25,000 tons of engineered fuel pellets as fuel for the boiler, during a 180-day period. LWEC plans to mix engineered fuel pellets in with their typical fuel blend. During this 180-day period, LWEC will optimize the boiler operating conditions while burning the new fuel, optimize the operation of the new sorbent injection pollution control system, and perform additional emissions testing while burning fuel pellets. The draft permit does not allow additional fuel (heat input) to the boiler, but rather the engineered fuel pellets will replace existing fuels that are currently utilized by the boiler. The draft permit continues to include an annual heat input limit of 2,656,800 MMBTU per year based on a 12-month rolling time-period. While burning engineered fuel pellets, the draft permit requires LWEC to operate the new sorbent injection pollution control system to control acid gas emissions.

The facility is located in Baraga County, which is currently meeting all of the NAAQS set by the United States Environmental Protection Agency (USEPA). These air quality standards are for particulate matter less than or equal to 10 microns in diameter (PM10), particulate matter less than or equal to 2.5 microns in diameter (PM2.5), ozone, carbon monoxide (CO), SO<sub>2</sub>, Nitrogen Oxides (NO<sub>x</sub>), and lead. These standards are set at levels designed to protect the public health.

### **Pollutant Emissions**

None of the emissions limits from the previously issued PTI No. 67-16 are changed in the draft PTI No. 53-17.

The emission factors for regulated pollutants on a heat input basis (pounds of pollutant per million British Thermal Units, lb/MMBTU) are expected to remain the same for most pollutants. The addition of engineered fuel pellets to the typical fuel mix is expected to decrease emissions of NO<sub>x</sub> on a lb/MMBTU basis. Due to the addition of sorbent injection pollution control, emissions of SO<sub>2</sub> and HCl are also expected to decrease.

The existing facility is a PSD major stationary source. LWEC has demonstrated that the proposed project will not result in a significant emissions increase of any regulated new source review (NSR) pollutant using the Baseline Actual to Projected Actual Emissions (A2A) Test. The Project Emissions Change equals the Projected Actual Emissions minus the existing Baseline Actual Emissions and the Excludable Emissions, as described in MDEQ Air Pollution Control Rule 336.2802(4)(c). The following table provides the estimated emissions change for each regulated pollutant:

**Table A – Project Emissions Summary**

<b>Pollutant</b>	<b>(PAE) Projected Actual Emissions (tpy)</b>	<b>(BAE) Baseline Period Emissions (tpy)</b>	<b>(EE) Excluded Emissions (tpy)</b>	<b>Project Emissions Increase (tpy)</b>	<b>PSD Significant Emission Rate (tpy)</b>
Particulate Matter (PM)	7.04	6.87	--	0.16	25.0
PM10*	16.4	16.0	--	0.4	15.0
PM2.5**	16.4	16.0	--	0.4	10.0
Nitrogen Oxides (NO <sub>x</sub> )	252.2	252.0	--	0.2	40.0
Volatile Organic Compounds (VOCs)	0.94	0.92	--	0.02	40.0
Sulfur Dioxide (SO <sub>2</sub> )	328	370	--	-42	40.0
Carbon Monoxide (CO)	182.9	178.7	--	4.2	100.0
Lead	0.0223	0.0218	--	0.0005	0.6
Fluorides	12.65	14.09	--	-1.44	3.0
Sulfuric Acid Mist (H <sub>2</sub> SO <sub>4</sub> )	33.23	37.00	--	-3.77	7.0
Hydrogen Sulfide (H <sub>2</sub> S)***	--	--	--	--	10.0
Total reduced sulfur***	--	--	--	--	10.0
Reduced sulfur compounds***	--	--	--	--	10.0

\* Particulate matter less than 10 microns in diameter

\*\* Particulate matter less than 2.5 microns in diameter

\*\*\*No H<sub>2</sub>S, total reduced sulfur compounds or reduced sulfur compounds are anticipated from this process. Sulfur in the fuel is expected to oxidize during combustion.

### **Key Permit Review Issues**

Staff evaluated the proposed project to identify all state rules and federal regulations which are, or may be, applicable. The tables in Appendix 1 summarize these rules and regulations.

- **Prevention of Significant Deterioration (PSD) Regulations** – LWEC is considered a major stationary source with respect to the PSD Regulations in Part 18 of the Michigan Air Pollution Control Rules and 40 CFR 52.21, which means that the potential emissions of one or more regulated NSR pollutant is greater than 250 tons per year (tpy). Existing major stationary PSD sources trigger permitting requirements under the PSD regulations if the emissions increase of any regulated NSR pollutant is greater than or equal to the PSD significant emission rate for that pollutant. Using the A2A test, LWEC demonstrated that this project will not result in an increase in actual projected emissions that is greater than the significant level for each regulated pollutant. Therefore, this project is not considered a major modification and is not subject to PSD New Source Review.
- **Minor/Major Modification Determination for Attainment Pollutants** – The facility is an existing PSD major stationary source. A modification at the facility where the emissions of any regulated pollutant will increase by more than the significant level for that pollutant results in the modification being subject to PSD requirements for that pollutant. LWEC is located in Baraga County which is currently in attainment for all criteria pollutants. The proposed project is not subject to PSD because it will not result in both a significant emissions increase as determined by the A2A Test and a significant net emission increase of any NSR regulated pollutant.
- **Federal NESHAP Regulations** – National Emission Standards for Hazardous Air Pollutants (NEHAP) were established under 40 CFR Part 61 or Part 63. The existing boiler is subject to the NESHAP for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR Part 63 Subpart JJJJJJ (6J). Conditions related to this regulation have already been included in previously issued PTI No. 67-16, and will be included in the ROP when it is renewed. The current fuel mix classifies the boiler as an existing biomass-fired boiler. Burning the proposed engineered fuel pellets in the boiler will not affect the applicability of Subpart 6J or LWEC's ability to comply with it.
- **Rule 224 T-BACT Analysis** – This rule requires best available control technology (BACT) for all toxic air contaminants (TACs) which will be emitted. The boiler is equipped with an existing electrostatic precipitator to control particulate emissions and TACs that are in particulate form. In addition, LWEC has proposed to install a sorbent injection system which will control acid gas emissions including HCl and hydrogen fluoride (HF). These two forms of pollution controls are considered best available control for air toxics (T-BACT) for the LWEC facility.
- **Rule 225 Toxics Analysis** –The MDEQ Rules for Air Pollution Control require the ambient air concentration of TACs be compared against health-based screening levels. AQD staff reviewed LWEC's evaluation of new TAC emissions which will result from the burning of the proposed engineered fuel pellets. The review found that TAC emissions are less than the Allowable Emission Rates which are determined based on established health-based screening levels, and will comply with Rule 225. The following Table B shows the result of the toxics analysis.

**Table B. Toxic Air Contaminant Impacts**

<b>CAS No.</b>	<b>Toxic Air Contaminant</b>	<b>Potential Emission Rate (lb/hr)</b>	<b>Maximum allowable emission rate (lb/hr)*</b>	<b>Percent (%) of maximum allowable</b>
7664393	hydrogen fluoride	$8.40 \times 10^{-1}$	5.40	16
7439976	mercury and mercury compounds	$2.03 \times 10^{-8}$	0.05	0.00004
7440360	antimony	$1.36 \times 10^{-6}$	0.108	0.001
7440382	arsenic	$1.09 \times 10^{-6}$	0.000108	1.0
7440417	beryllium	$5.24 \times 10^{-7}$	0.001	0.2
7440439	cadmium	$1.01 \times 10^{-7}$	0.000324	0.03
7440473	chromium	$3.52 \times 10^{-6}$	4.5E-05	7.86
7440484	cobalt	$1.50 \times 10^{-7}$	0.004	0.004
7440020	nickel	$1.08 \times 10^{-6}$	.0023	0.04
7439954	magnesium	$5.08 \times 10^{-5}$	2	0.002
7782492	selenium and inorganic selenium compounds	$1.94 \times 10^{-6}$	0.04	0.005
7439965	manganese and manganese compounds	$1.31 \times 10^{-5}$	0.162	0.01

\*The maximum allowable emission rates were determined by the Rule 227(1)(a) methodology for all TACs except HF, which was determined based on the Rule 227(1)(b) methodology, which takes the stack height, building height, and distance to property line into account. Some TACs have more than one screening level. In those cases, the maximum allowable emission rate listed correlates with the most stringent screening level.

- **Rule 702 VOC Emissions** – This rule requires an evaluation of the following four items to determine what will result in the lowest maximum allowable emission rate of VOCs:
  - a. BACT or a limit listed by the department on its own initiative.
  - b. New Source Performance Standards (NSPS).
  - c. VOC emission rate specified in another permit.
  - d. VOC emission rate specified in the Part 6 rules for existing sources.

An evaluation of these four items determined that a VOC BACT (702(a)) analysis would dictate the lowest maximum allowable emission rate of VOC from the boiler. The addition of engineered fuel pellets is not expected to cause an increase in VOC emissions. Proper combustion design is VOC BACT. CO emissions, which are an indication of combustion efficiency, will continue to be monitored by the facility's existing continuous emissions monitoring system.

- **Criteria Pollutants Modeling Analysis** – An air quality impact analysis, as required by MDEQ Air Pollution Control Rules 336.2811 through 336.2813 (Rules 1811 through 1813), using computer dispersion modeling to predict the ambient air impacts from the proposed project was performed for CO, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and SO<sub>2</sub>, emissions. NO<sub>x</sub> refers specifically to nitrogen monoxide (NO) and NO<sub>2</sub> with the larger portion being that of NO<sub>2</sub>, a highly reactive gas, which is what the USEPA established air quality standards for under the Clean Air Act.

The first step in an air quality impact analysis is to evaluate potential emission increases from the proposed project against their respective significant impact levels (SILs). Emission increases that are less than the SIL are not expected to cause a violation of the NAAQS or to exceed the allowable PSD increments. The NAAQS are intended to protect public health. The PSD increments are intended to allow industrial growth in an area, while ensuring that the area will continue to meet the NAAQS.

The following Table C shows the result of the SIL modeling for this proposed project and that additional modeling is not required for any pollutant or averaging time. Negative impacts indicate that the project could potentially result in a reduction in pollutant impacts.

**Table C - SIL Modeling Impacts**

<b>Pollutant</b>	<b>Averaging Time</b>	<b>PSD Significant Level (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Predicted Impact (<math>\mu\text{g}/\text{m}^3</math>)</b>	<b>Additional Modeling?</b>
PM10	Annual	1	0.001	No
PM10	24-hr	5	1.3	No
PM2.5	Annual	0.3	0.001	No
PM2.5	24-hr	1.2	0.6	No
NO <sub>2</sub>	Annual	1	0.0004	No
NO <sub>2</sub>	1-hr	5	-10.8	No
SO <sub>2</sub>	Annual	1	-0.085	No
SO <sub>2</sub>	24-hr	5	-10.7	No
SO <sub>2</sub>	3-hr	25	-63.6	No
SO <sub>2</sub>	1-hr	7.8	-96.5	No
CO	8-hr	500	0.5	No
CO	1-hr	2,000	1.6	No

### **Key Aspects of Draft Permit Conditions**

Draft PTI No. 53-17 includes all the same conditions from PTI No. 67-16, plus additional conditions related to the burning of the engineered fuel pellets. As it is a temporary permit, it will automatically become void, at which point the facility will continue to operate under the ROP. Below is a summary of the *additional* conditions related to the temporary permit.

- **Emission Limits (By Pollutant)** – The draft permit includes particulate and opacity limits for the new sorbent handling system.
- **Material Usage Limits** – The draft permit includes a limit that allows no more than 25,000 tons of engineered fuel pellets to be burned in the boiler. Also, the draft permit requires that the engineered fuel pellets must meet the specifications that classify them as a non-hazardous, non-waste alternative fuel, according to USEPA guidance.
- **Process/Operational Restrictions** – The draft permit requires LWEC to submit a temporary Fuel Procurement and Monitoring Plan and Malfunction Abatement Plan to cover the use of engineered fuel pellets and the required associated sorbent injection system.

- **Testing & Monitoring Requirements** – The draft permit requires LWEC to:
  - Have a fuel analysis for every shipment of engineered fuel pellets.
  - Conduct stack testing of PM, PM10, SO<sub>2</sub>, NO<sub>x</sub>, HCl, arsenic, lead, manganese, and nickel emission rates from the boiler while burning engineered fuel pellets.
  - Monitor and record the sorbent injection rate for the boiler on an hourly basis.
- **Emission Control Device Requirements** – The draft permit requires LWEC to have the sorbent injection air pollution control system installed and operating whenever the engineered fuel pellets are burned in the boiler. Also, the silo storing the dry sorbent must have a fabric filter or equivalent control installed and operating properly to control particulate emissions.
- **Reporting Requirements** – The draft permit requires LWEC to notify the AQD in writing 10 days prior to the start of burning the engineered fuel pellets.
- **Other** – The draft permit will terminate 180 days after the fuel pellets are first combusted in the boiler.

### **Conclusion**

Based on the analyses conducted to date, staff concludes that the proposed project would comply with all applicable state and federal air quality requirements. Staff also concludes that this project, as proposed, would not violate the federal NAAQS or the state and federal PSD increments.

Based on these conclusions, staff has developed draft permit terms and conditions which would ensure that the proposed facility design and operation are enforceable and that sufficient monitoring, recordkeeping, and reporting would be performed by the applicant to determine compliance with these terms and conditions. If the permit application is deemed approvable, the delegated decision maker may determine a need for additional or revised conditions to address issues raised during the public participation process.

If you would like additional information about this proposal, please contact Ms. Michelle Rogers, AQD, at 517-284-6799.



**Appendix 1**  
**STATE AIR REGULATIONS**

<b>State Rule</b>	<b>Description of State Air Regulations</b>
<b>R 336.1201</b>	Requires an Air Use Permit for new or modified equipment that emits, or could emit, an air pollutant or contaminant. However, there are other rules that allow smaller emission sources to be installed without a permit (see Rules 336.1279 through 336.1290 below). Rule 336.1201 also states that the Department can add conditions to a permit to assure the air laws are met.
<b>R 336.1205</b>	Outlines the permit conditions that are required by the federal Prevention of Significant Deterioration (PSD) Regulations and/or Section 112 of the Clean Air Act. Also, the same types of conditions are added to their permit when a plant is limiting their air emissions to legally avoid these federal requirements. (See the Federal Regulations table for more details on PSD.)
<b>R 336.1224</b>	New or modified equipment that emits toxic air contaminants must use the Best Available Control Technology for Toxics (T-BACT). The T-BACT review determines what control technology must be applied to the equipment. A T-BACT review considers energy needs, environmental and economic impacts, and other costs. T-BACT may include a change in the raw materials used, the design of the process, or add-on air pollution control equipment. This rule also includes a list of instances where other regulations apply and T-BACT is not required.
<b>R 336.1225 to R 336.1232</b>	The ambient air concentration of each toxic air contaminant emitted from the project must not exceed health-based screening levels. Initial Risk Screening Levels (IRSL) apply to cancer-causing effects of air contaminants and Initial Threshold Screening Levels (ITSL) apply to non-cancer effects of air contaminants. These screening levels, designed to protect public health and the environment, are developed by Air Quality Division toxicologists following methods in the rules and U.S. EPA risk assessment guidance.
<b>R 336.1279 to R 336.1291</b>	These rules list equipment to processes that have very low emissions and do not need to get an Air Use permit. However, these sources must meet all requirements identified in the specific rule and other rules that apply.
<b>R 336.1301</b>	Limits how air emissions are allowed to look at the end of a stack. The color and intensity of the color of the emissions is called opacity.
<b>R 336.1331</b>	The particulate emission limits for certain sources are listed. These limits apply to both new and existing equipment.
<b>R 336.1370</b>	Material collected by air pollution control equipment, such as dust, must be disposed of in a manner, which does not cause more air emissions.
<b>R 336.1401 and R 336.1402</b>	Limit the sulfur dioxide emissions from power plants and other fuel burning equipment.
<b>R 336.1601 to R 336.1651</b>	Volatile organic compounds (VOCs) are a group of chemicals found in such things as paint solvents, degreasing materials, and gasoline. VOCs contribute to the formation of smog. The rules set VOC limits or work practice standards for existing equipment. The limits are based upon Reasonably Available Control Technology (RACT). RACT is required for all equipment listed in Rules 336.1601 through 336.1651.
<b>R 336.1702</b>	New equipment that emits VOCs is required to install the Best Available Control Technology (BACT). The technology is reviewed on a case-by-case basis. The VOC limits and/or work practice standards set for a particular piece of new equipment cannot be less restrictive than the Reasonably Available Control Technology limits for existing equipment outlined in Rules 336.1601 through 336.1651.
<b>R 336.1801</b>	Nitrogen oxide emission limits for larger boilers and stationary internal combustion engines are listed.
<b>R 336.1901</b>	Prohibits the emission of an air contaminant in quantities that cause injurious effects to human health and welfare, or prevent the comfortable enjoyment of life and property. As an example, a violation may be cited if excessive amounts of odor emissions were found to be preventing residents from enjoying outdoor activities.
<b>R 336.1910</b>	Air pollution control equipment must be installed, maintained, and operated properly.
<b>R 336.1911</b>	When requested by the Department, a facility must develop and submit a malfunction abatement plan (MAP). This plan is to prevent, detect, and correct malfunctions and equipment failures.

### STATE AIR REGULATIONS

State Rule	Description of State Air Regulations
<b>R 336.1912</b>	A facility is required to notify the Department if a condition arises which causes emissions that exceed the allowable emission rate in a rule and/or permit.
<b>R 336.2001 to R 336.2060</b>	Allow the Department to request that a facility test its emissions and to approve the protocol used for these tests.
<b>R 336.2801 to R 336.2804</b> <b>Prevention of Significant Deterioration (PSD) Regulations</b>	<p>The PSD rules allow the installation and operation of large, new sources and the modification of existing large sources in areas that are meeting the National Ambient Air Quality Standards (NAAQS). The regulations define what is considered a large or significant source, or modification.</p> <p>In order to assure that the area will continue to meet the NAAQS, the permit applicant must demonstrate that it is installing the BACT. By law, BACT must consider the economic, environmental, and energy impacts of each installation on a case-by-case basis. As a result, BACT can be different for similar facilities.</p>
<b>Best Available Control Technology (BACT)</b>	In its permit application, the applicant identifies all air pollution control options available, the feasibility of these options, the effectiveness of each option, and why the option proposed represents BACT. As part of its evaluation, the Air Quality Division verifies the applicant's determination and reviews BACT determinations made for similar facilities in Michigan and throughout the nation.
<b>R 336.2901 to R 336.2903 and R 336.2908</b>	<p>Applies to new "major stationary sources" and "major modifications" as defined in R 336.2901. These rules contain the permitting requirements for sources located in nonattainment areas that have the potential to emit large amounts of air pollutants. To help the area meet the NAAQS, the applicant must install equipment that achieves the Lowest Achievable Emission Rate (LAER). LAER is the lowest emission rate required by a federal rule, state rule, or by a previously issued construction permit. The applicant must also provide emission offsets, which means the applicant must remove more pollutants from the air than the proposed equipment will emit. This can be done by reducing emissions at other existing facilities.</p> <p>As part of its evaluation, the AQD verifies that no other similar equipment throughout the nation is required to meet a lower emission rate and verifies that proposed emission offsets are permanent and enforceable.</p>

### FEDERAL AIR REGULATIONS

Citation	Description of Federal Air Regulations or Requirements
<b>Section 109 of the Clean Air Act – National Ambient Air Quality Standards (NAAQS)</b>	The United States Environmental Protection Agency has set maximum permissible levels for seven pollutants. These NAAQS are designed to protect the public health of everyone, including the most susceptible individuals, children, the elderly, and those with chronic respiratory ailments. The seven pollutants, called the criteria pollutants, are carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter less than 10 microns (PM10), particulate matter less than 2.5 microns (PM2.5), and sulfur dioxide. Portions of Michigan are currently non-attainment for either lead or sulfur dioxide. Further, in Michigan, State Rules 336.1225 to 336.1232 are used to ensure the public health is protected from other compounds.
<b>40 CFR 52.21 – Prevention of Significant Deterioration (PSD) Regulations</b>	<p>The PSD regulations allow the installation and operation of large, new sources and the modification of existing large sources in areas that are meeting the NAAQS. The regulations define what is considered a large or significant source, or modification.</p> <p>In order to assure that the area will continue to meet the NAAQS, the permit applicant must demonstrate that it is installing BACT. By law, BACT must consider the economic, environmental, and energy impacts of each installation on a case-by-case basis. As a result, BACT can be different for similar facilities.</p>
<b>Best Available Control Technology (BACT)</b>	In its permit application, the applicant identifies all air pollution control options available, the feasibility of these options, the effectiveness of each option, and why the option proposed represents BACT. As part of its evaluation, the Air Quality Division verifies the applicant's determination and reviews BACT determinations made for similar facilities in Michigan and throughout the nation.

**FEDERAL AIR REGULATIONS**

Citation	Description of Federal Air Regulations or Requirements
<b>40 CFR 60 – New Source Performance Standards (NSPS)</b>	The United States Environmental Protection Agency has set national standards for specific sources of pollutants. These New Source Performance Standards (NSPS) apply to new or modified equipment in a particular industrial category. These NSPS set emission limits or work practice standards for over 60 categories of sources.
<b>40 CFR 63— National Emissions Standards for Hazardous Air Pollutants (NESHAP)</b>	The United States Environmental Protection Agency has set national standards for specific sources of pollutants. The National Emissions Standards for Hazardous Air Pollutants (NESHAP) (a.k.a. Maximum Achievable Control Technology (MACT) standards) apply to new or modified equipment in a particular industrial category. These NESHAPs set emission limits or work practice standards for over 100 categories of sources.
<b>Section 112 of the Clean Air Act</b>  <b>Maximum Achievable Control Technology (MACT)</b>  <b>Section 112g</b>	In the Clean Air Act, Congress listed 189 compounds as Hazardous Air Pollutants (HAPS). For facilities which emit, or could emit, HAPS above a certain level, one of the following two requirements must be met:  1) The United States Environmental Protection Agency has established standards for specific types of sources. These Maximum Achievable Control Technology (MACT) standards are based upon the best-demonstrated control technology or practices found in similar sources.  2) For sources where a MACT standard has not been established, the level of control technology required is determined on a case-by-case basis.

**Notes:** An “Air Use Permit,” sometimes called a “Permit to Install,” provides permission to emit air contaminants up to certain specified levels. These levels are set by state and federal law, and are set to protect health and welfare. By staying within the levels set by the permit, a facility is operating lawfully, and public health and air quality are protected.

**The Air Quality Division does not have the authority to regulate noise, local zoning, property values, off-site truck traffic, or lighting.**

These tables list the most frequently applied state and federal regulations. Not all regulations listed may be applicable in each case. Please refer to the draft permit conditions provided to determine which regulations apply.